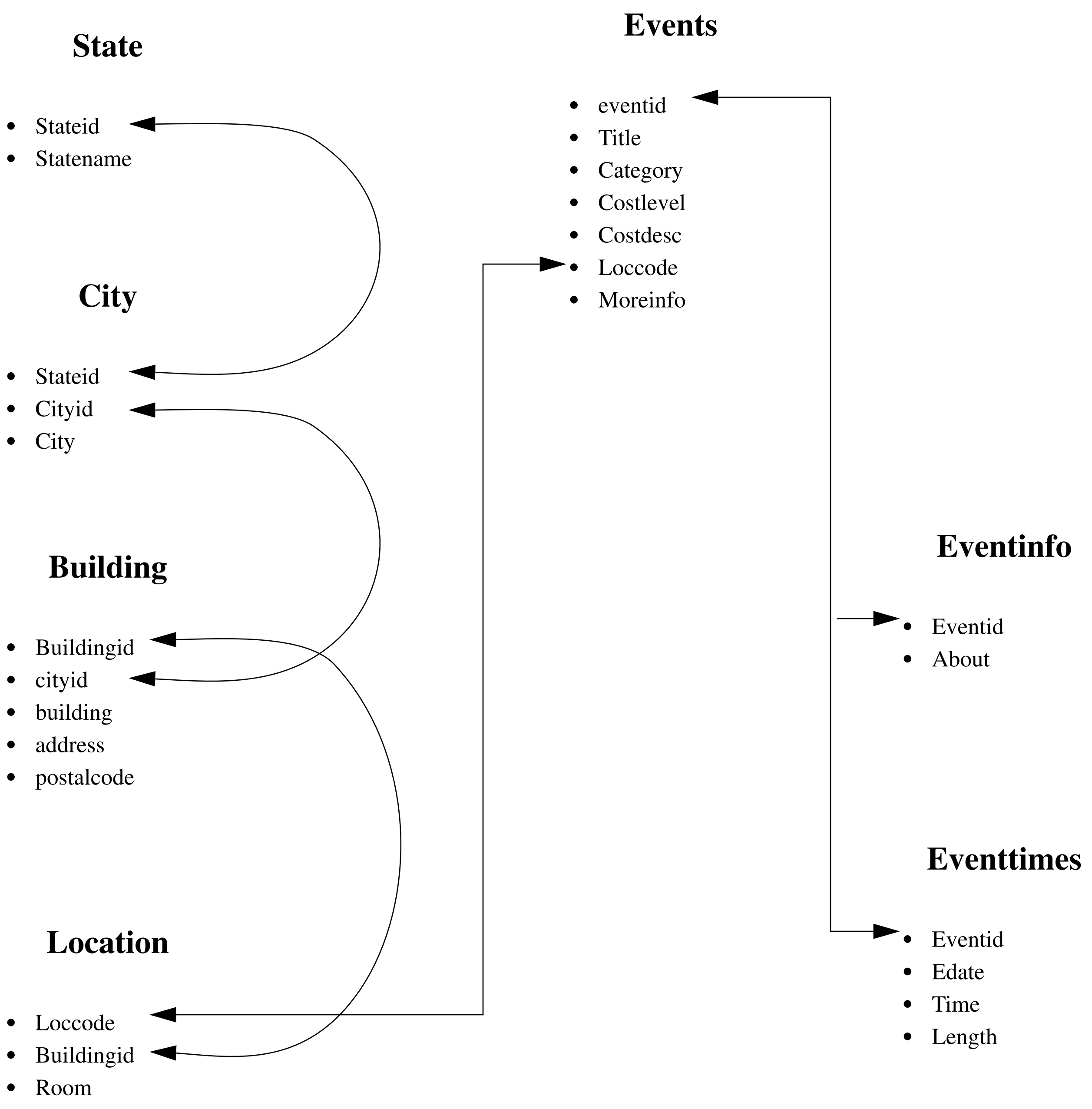
Entity Relationship Diagram for the Events and Locations Database



Currently the Events database is geared towards singular events (i.e. events that occur only once or twice.) This is because we store the beginning time and length in a table. This is inefficient for repeating events such as long running movies, plays and art exhibits. A separate database or redesign may be required for these events.

Another database being considered is a ‘Personnel’ database. People could use this to create their own personal schedules. This would also allow you to ‘sign’ up for an event, and browse a list of attendees for an event.

A rating system for events could be established, allowing someone to ‘vote’ for a specific event. You could then search for highly rated events.

7.0 Technical Details

7.1 Internet Gopher and the Gopher Protocol

Internet Gopher is an information system used to publish and organize information on servers distributed across the Internet. Initially developed at the University of Minnesota in early 1991, it has spread to over 4800 sites worldwide as of December 1993.

The Gopher system is a client-server system that can be used to build a Campus Wide Information System (CWIS). Clients, which browse and search information are available for most major platforms (Macintosh, DOS, Windows, Unix, VMS, MVS, VM/CMS, OS/2). Servers, which translate and publish information, are also available for all of the platforms mentioned above.

This client-server architecture uses the Internet Gopher Protocol. The Gopher protocol has been described as “brutally simple.” It is based on a web/tree metaphor of files and directories. Its basic primitives are a list directory transaction, a retrieve file transaction and a search for directory entries transaction.

7.2 SQL Database Details. Entities and Relationships

The following page contains a diagram of the tables contained in the database. Each table is represented by it’s name followed by a bulleted list of the columns. Arrows connect columns that reference other tables.

A number of views are defined to make searching the database easier. The view *Eventview* contains the most popular fields for searching and joins the location, building, events, eventtimes, and eventinfo tables together. An *Eventinserter* view is used to insert items into the database. The *Eventplace* view joins together the location, building, and city.

A number of indexes are also created, to increase the performance of searches.

7.3 The Gateway Software

The software that brings allows access to the database is Gophersql. Gophersql was developed by the University of Minnesota to allow Internet Gopher Clients access to a SQL database such as Oracle or Sybase.

The SQL gateway allows the Gopher Client to:

- View the tables of a database as a Gopher directory
- View the columns of a given table as a Gopher directory
- View the contents of a column as a Gopher directory
- View records as formatted text.
- View/import records as tab-separated-values
- Add records to a table.
- Search the table by filling out a Gopher+ form.

The gateway is available via anonymous ftp from

boombox.micro.umn.edu

via anonymous ftp from the directory

/pub/gopher/Unix/gopher-gateways/gophersql

The files used to construct this events database are included in the distribution.

7.4 Accessing the Gateway

To access the Events database you can connect to the machine *arcwelder.micro.umn.edu* on port 70.

5.0 Event and Location Data Management

A number of forms are defined for adding data to the events database. The first form is for adding a Building/room to the list of locations.

The gateway software does some intelligent checks to insure that the city is in the database and checks for matches in the database.

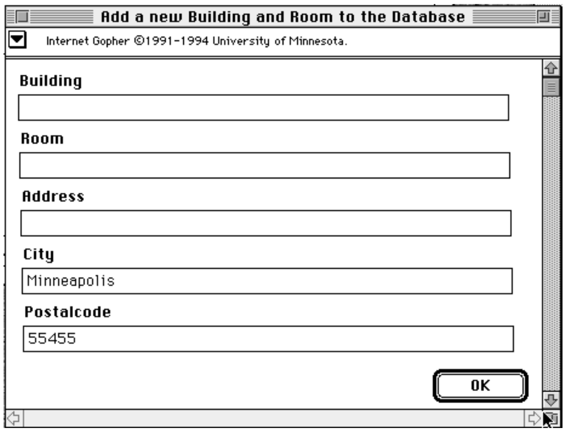


FIGURE 7. Adding a New Location

Add a new Building and Room to the Database

Internet Gopher ©1991-1994 University of Minnesota.

Building

Room

Address

City

Minneapolis

Postalcode

55455

The second form is used to enter information about the event. Again, a number of consistency checks are done.

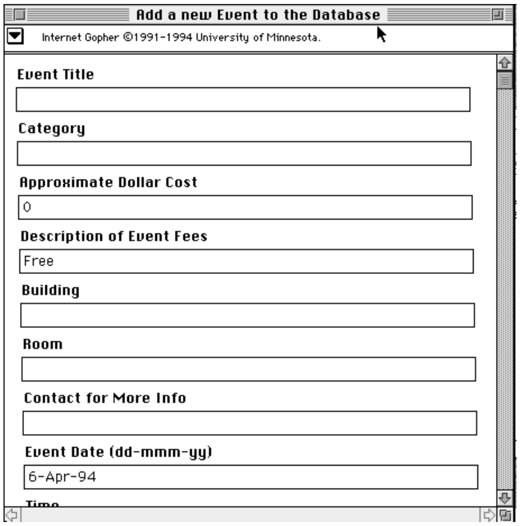


FIGURE 8. Adding a New Event

Add a new Event to the Database

Internet Gopher ©1991-1994 University of Minnesota.

Event Title

Category

Approximate Dollar Cost

0

Description of Event Fees

Free

Building

Room

Contact for More Info

Event Date (dd-mmm-yy)

6-Apr-94

For events that have more than one showing (movies, plays, etc.) we have another form for adding a time to a current event. This form can be used as many times as necessary to add Show Times to an existing event.

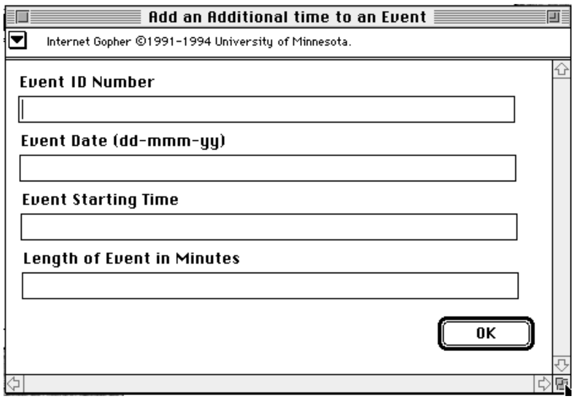


FIGURE 9. Adding an Additional Date and Time

Add an Additional time to an Event

Internet Gopher ©1991-1994 University of Minnesota.

Event ID Number

Event Date (dd-mmm-yy)

Event Starting Time

Length of Event in Minutes

6.0 Future plans

The Locations database will eventually interface with a database of Maps and Coordinates, allowing one to browse locations graphically. In the future this database might contain three dimensional renderings of geography.

George can quickly browse the Events for Today items. They make great bookmarks, since they change every day. The first item returns the items listed in a directory, this is best for browsing. The second item is a file containing all the events for the day. This is handy for printing out.

George is looking to the weekend however, so he selects "Events for the next 7 days".

FIGURE 3. Events for the Next 7Days

Bijou Sneak Preview - Back Beat
Bijou Sneak Preview - Threesome
Dick Higgins and Alison Knowles
It's All True (2)
Jello Biafra Tour - A Spoken Word Performance
Julius Hemphill
Matt Wilson and Planetmaker
Miami City Ballet (2)
Montana's Missouri River

And, lo and behold, he sports "Saturday Night Fever."! George notices that there are two showings coming up, so he clicks on the item and gets the description of the event:

FIGURE 4. Saturday Night Fever Event